



PTO/SB/21 (08-03)

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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)		Application Number	10/017,033
		Filing Date	December 14, 2001
		First Named Inventor	M'Saad, Hichem
		Art Unit	1731
		Examiner Name	Hoffmann, John M.
Total Number of Pages in This Submission		Attorney Docket Number	A6139/T43800

ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s)	<input type="checkbox"/> After Allowance Communication to Group <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  Copies of two (2) cited references Return Postcard
Remarks		The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual	Townsend and Townsend and Crew LLP Patrick M. Boucher Reg. No. 44,037
Signature	<i>Patrick M. Boucher</i>
Date	June 30, 2004

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Nina L. McNeill		
Signature	<i>Nina L. McNeill</i>	Date	June 30, 2004

**FEE TRANSMITTAL  
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 180**Complete if Known**

Application Number	10/017,033
Filing Date	December 14, 2001
First Named Inventor	M'Saad, Hichem
Examiner Name	Hoffmann, John M.
Art Unit	1731
Attorney Docket No.	A6139/T43800

**METHOD OF PAYMENT (check all that apply)**☐ Check ☐ Credit Card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:Deposit  
Account  
Number

20-1430

Deposit  
Account  
Name

Townsend and Townsend and Crew LLP

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee  
to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

**SUBTOTAL (1)**

(\$)

**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

		Extra Claims		Fee from below		Fee Paid
Total Claims	**	=		X		
Independent Claims		=		X		
Multiple Dependent		=		X		

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2)**

(\$)

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet.	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Petitions related to provisional applications	
1806	180	1806	180	Submission of Information Disclosure Stmt	180
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR § 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR § 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify) \_\_\_\_\_

\*Reduced by Basic Filing Fee Paid **SUBTOTAL (3)**

(\$180)

**SUBMITTED BY****Complete (if applicable)**

Name (Print/Type)	Patrick M. Boucher	Registration No. (Attorney/Agent)	44,037	Telephone	303-571-4000
Signature		Date	June 30, 2004		

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PATENT  
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AMAT No.: 006139/DD/HDP/CVD/JW  
TTC No.: 016301-043800US



Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

On June 30, 2004

TOWNSEND AND TOWNSEND AND CREW LLP

By Maria L. McNeil

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of:

Hichem M'Saad

Application No.: 10/017,033

Filed: December 14, 2001

For: HDP-CVD FILM FOR  
UPPERCLADDING APPLICATION IN  
OPTICAL WAVEGUIDES

Examiner: Hoffmann, John M.

Art Unit: 1731

SUPPLEMENTAL INFORMATION  
DISCLOSURE STATEMENT UNDER 37  
CFR §1.97 and §1.98

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

The references cited on attached form PTO/SB/08A and PTO/SB/08B are being called to the attention of the Examiner. Copies of the references are enclosed.

It is respectfully requested that the cited references be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

The following translations of the abstracts of these references are provided, and constitute the entire understanding of the relevance of the references as understood by the

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undersigned. No English translation of the entire references is known to be available to any individual specified in 37 C.F.R. §1.56(c).

1. EP 0 659 902

Plasma-assisted CVD of a silica thin film on a substrate involves: (a) introducing oxygen and opt. argon into a vacuum chamber, igniting the plasma and then introducing silane; and (b) carrying out the process under the conditions of 40-80 (pref. 60) microbars gas pressure in the chamber, 0-35 (pref. 10) cu.cm/min. argon supply rate, 12-24 (pref. 12) cu.cm/min. silane supply rate, 13-38 (pref. 26-38) cu.cm/min. oxygen supply rate, 200-300 (pref. 200) deg.C substrate temp. and 750- 1100 (pref. 1100) W plasma reactor power. Phosphine may also be introduced into the chamber to dope the silica thin film.

Also claimed in an appts. for carrying out silica thin film CVD.

USE - E.g. in the prodn. of a planar optical waveguide on a silicon substrate or in the mfr. of a flat LCD screen

ADVANTAGE - The process allows deposition of silica contg. very little hydrogen (10-100 ppm) at close to 200 deg.C and produces 0.1-10 microns thick deposits in a few mins.

2. EP 0 735 160

In a process for CVD of a silica thin film, for an integrated optical waveguide, from O<sub>2</sub> and SiCl<sub>4</sub> with microwave-generated plasma assistance, the novelty is that: (a) the substrate temp. is maintained at 200-800 (pref. 500-600) deg.C; (b) the CVD chamber pressure is maintained at 1-20 Pa; and (c) the SiCl<sub>4</sub>-contg. reactive gas is injected between the plasma and the substrate within the chamber. Pref. the plasma is created from O<sub>2</sub> and the reactive gas also contains a carrier gas and opt. one or more dopants such as GeCl<sub>4</sub>, C<sub>2</sub>F<sub>6</sub>, POCl<sub>3</sub> and/or BCl<sub>3</sub>.

Also claimed are: (i) a CVD appts. for carrying out the above process; and (ii) an integrated optical waveguide mfg. method including the above process.

ADVANTAGE - The process produces a thin film with improved thickness and optical index uniformity, while maintaining high deposition rate, a reduced number of process steps and a low process tem. ( $< 800$  deg.C). Additionally, the thin film has acceptable optical attenuation at 1.55 and 1.3  $\mu\text{m}$ , without the need for a supplementary annealing step.

As provided for by 37 CFR 1.97(g) and (h), no inference should be made that the information and references cited are prior art merely because they are in this statement and no representation is being made that a search has been conducted or that this statement encompasses all the possible relevant information.

This IDS is being filed before the mailing date of the final Office Action or Notice of Allowance.

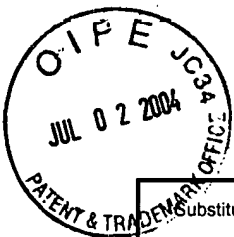
Please charge the IDS fee of \$180 to Deposit Account No. 20-1430. Please deduct any additional fees from, or credit any overpayment to, the above-noted Deposit Account.

Respectfully submitted,



Patrick M. Boucher  
Reg. No. 44,037

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/017,033		
		Filing Date	December 14, 2001		
		First Named Inventor	M'Saad, Hichem		
		Art Unit	1731		
		Examiner Name	Hoffmann, John M.		
Sheet	1	of	1	Attorney Docket Number	016301-043800US

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (If known)				
	Y	EP	0 659 902	A1	28-6-1995	France Telecom		<input type="checkbox"/>
	Z	EP	0 735 160	B1	30-8-2000	France Telecom		<input type="checkbox"/>

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.